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## Chapter 2

# Default person versus default number in agreement

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In this paper, we compare the behaviour of the default in the person system (third person) with the default in the number system (singular). We argue, following Nevins (2007; 2011), that third person pronouns have person features, while singular DPs lack number features. The evidence for these claims comes from situations in which a single head agrees with multiple DPs that have contrasting person and number specifications. In cases where the number of morphological slots in which agreement can be realized is lower than the number of agreement relations established in syntax, such contrasting specification may prove problematic. As it turns out, conflicts between singular and plural do not result in ungrammaticality, but conflicts between third person and first or second person do. Such person clashes can be avoided if the morphological realization of the relevant person features is syncretic. Alternatively, languages may make use of a person hierarchy that regulates the morphological realization of conflicting specifications for person. The argument we present is rooted in, and supports, the theory of person developed in Ackema & Neeleman (2013; 2018).

## 1 Introduction

The problem addressed in this paper is an apparent paradox involving singular number and third person. On the one hand, there is evidence that in the person system the default is third person, while in the number system the default is singular. For example, dummy pronouns and verbs that fail to agree (as in impersonal passives) show up in the third person singular:



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- (1) a. It seems that a solution is hard to find.  
 b. \*I/you/they seem(s) that a solution is hard to find.
- (2) Dutch  
 Nog jaren is / \*ben / \*bent / \*zijn naar een oplossing gezocht.  
 still years be-3SG / be.1SG / be.2SG / be.PL for a solution searched  
 ‘People searched for a solution for many years.’

On the other hand, singular agreement can be overwritten by plural agreement in certain contexts, but in those same contexts third person agreement cannot be overwritten. For example, in (3) the expected singular agreement with the subject pronoun is replaced by plural agreement if the clefted constituent is plural, but not by first person or second person agreement if the clefted constituent is a first person or second person pronoun.

- (3) Dutch
- a. PL overwrites SG  
 Het zijn zij die de whisky gestolen hebben.  
 it are.PL they who the whisky stolen have  
 ‘It’s them who stole the whisky.’
- b. 1<sup>st</sup> clashes with 3<sup>rd</sup>  
 \*Het ben ik die de whisky gestolen heeft.  
 it am I who the whisky stolen has  
 ‘It’s me who stole the whisky.’
- c. 2<sup>nd</sup> clashes with 3<sup>rd</sup>  
 \*Het ben jij die de whisky gestolen heeft.  
 it are.SG you.SG who the whisky stolen has  
 ‘It’s you who stole the whisky.’
- d. No overwriting  
 Het is hij die de whisky gestolen heeft.  
 it is he who the whisky stolen has  
 ‘It’s him who stole the whisky.’

Nevins (2007; 2011) argues that singular is the absence of plural, while third person is not the absence of person but does in fact have a feature specification (see also Kerstens 1993; Halle 1997; contra Forchheimer 1953; Kayne 1993; Harley & Ritter 2002; Béjar & Rezac 2003; Cysouw 2003; Anagnostopoulou 2005; Adger

& Harbour 2007). We agree with this (see Ackema & Neeleman 2013; 2018). But if there is this asymmetry between singular number and third person, the question arises how can we account for the fact that both singular and third person are defaults. This would follow naturally from the idea, rejected here, that third person, like singular, is a name for the absence of information.

In this paper, we will account for the fact that the default in the person system has feature content while the default in the number system does not. We will show that our proposal captures data from various languages that involve the realization of a single agreement slot when there is agreement with multiple arguments, as in the examples in (3). The paper is organized as follows. In §2, we introduce a system of privative person features, in which third person has a specification. In §3, we introduce a system of privative number features, in which singular has no specification. We set out our theory of defaults in §4. We will argue that the default is that feature specification that allows reference to the empty set. In §5 and §6, we confront this theory with data in which multiple arguments agree with a single verbal head. §7 concludes the chapter.

## 2 The person system

Our starting point in exploring the person system is a generalization about the pattern of syncretisms found in the morphological realization of person. The relevant generalization was noted by Baerman et al. (2005: 59) and Baerman & Brown (2011) and is given in (4)

- (4) 1–2 and 2–3 syncretisms are far more common than 1–3 syncretisms.

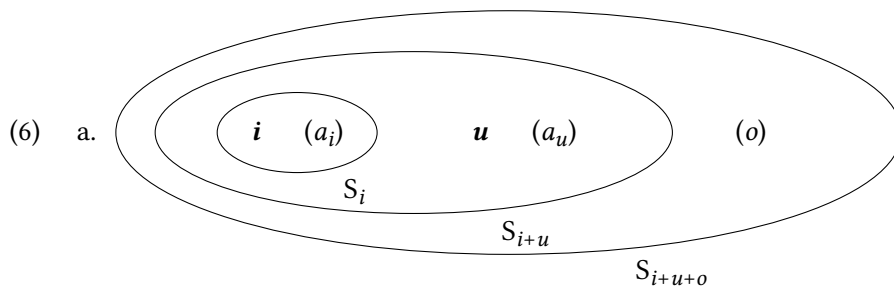
The asymmetry expressed in (4) suggests that the system of person features is organised as in (5) (compare Kerstens 1993; Halle 1997; Bennis & MacLean 2006; Aalberse & Don 2009; 2011):

- |                         |                                  |                     |
|-------------------------|----------------------------------|---------------------|
| (5) <i>First person</i> | <i>Second person</i>             | <i>Third person</i> |
| [F <sub>1</sub> ]       | [F <sub>1</sub> F <sub>2</sub> ] | [F <sub>2</sub> ]   |

In line with this, we propose in Ackema & Neeleman (2013) that there are two person features, PROX and DIST. PROX is shared by first and second person; DIST is shared by second and third person. Following insights in Harbour (2016), we interpret these features as functions. Both operate on an input set to deliver a subset as output.

The basic input set for the person system, which we call  $S_{i+u+o}$ , contains a subset  $S_{i+u}$ , which in turn contains a subset  $S_i$ .  $S_i$  contains the speaker, which

we will represent as  $i$ , and any associates of the speaker, represented as  $a_i$ .  $S_{i+u}$  additionally contains the addressee(s), represented as  $u$ , and any associates of the addressee ( $a_u$ ). Finally,  $S_{i+u+o}$  contains additional members that are neither associates of the speaker nor of the addressee(s); these other members are represented as  $o$ .<sup>1</sup> The only obligatory members of  $S_{i+u+o}$  are one  $i$  and one  $u$ :



- b.  $\text{PRED}(S_{i+u+o}) = S_{i+u}$
- c.  $\text{PRED}(S_{i+u}) = S_i$
- d.  $\text{PROX}(S) = \text{PRED}(S)$
- e.  $\text{DIST}(S) = S - \text{PRED}(S)$

The two person features are defined in terms of a function  $\text{PRED}$  (for ‘predecessor’) given in (6b,c).  $\text{PROX}$ , whose definition is given in (6d), discards the outer layer of the input set; applied to  $S_{i+u+o}$  it delivers  $S_{i+u}$ .  $\text{DIST}$ , whose definition is given in (6e), selects the outer layer; applied to  $S_{i+u+o}$  it delivers  $S_{i+u+o} - S_{i+u}$ .

We now consider how first, second and third person readings are derived, starting with the singular. The specification of the third person singular is straightforward: it should be  $[\text{DIST}]$ , as this feature will give  $S_{i+u+o} - S_{i+u}$ , a set that excludes the speaker and any addressees.

The first person singular is derived by two applications of  $\text{PROX}$ . It first applies to  $S_{i+u+o}$ , delivering  $S_{i+u}$ ; it then applies to the latter set, delivering  $S_i$ . The only obligatory member of  $S_i$  is the speaker, yielding the correct interpretation in the singular:

$$\begin{aligned}
 (7) \quad & \text{PROX}(\text{PROX}(S_{i+u+o})) \\
 & = \text{PROX}(S_{i+u}) && \text{by (6d)} \\
 & = S_i && \text{by (6d)}
 \end{aligned}$$

<sup>1</sup>For the purposes of this paper, the difference between associates and others is irrelevant. A detailed discussion of this distinction can be found in Ackema & Neeleman (2018).

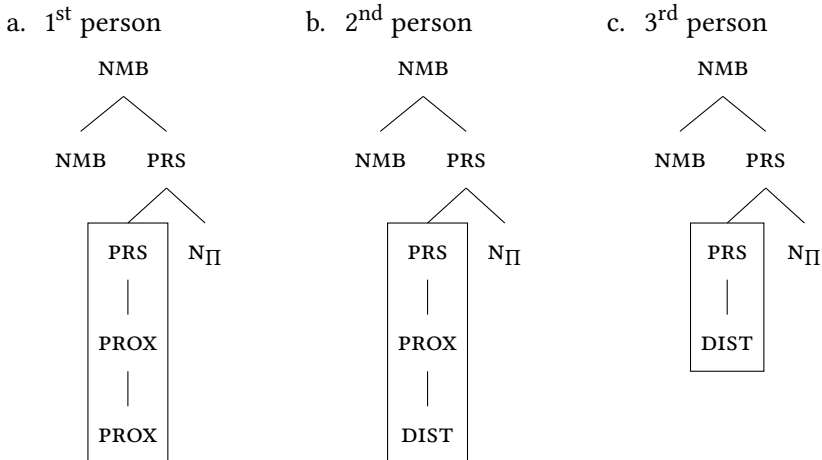
The second person singular is generated by applying both **PROX** and **DIST**. **PROX** is applied first, so that  $S_{i+u}$  is selected. Applying **DIST** to this set removes  $S_i$ , leaving a set with  $u$  as the only obligatory member:

$$\begin{aligned}
 (8) \quad & \text{DIST}(\text{PROX}(S_{i+u+o})) \\
 &= \text{DIST}(S_{i+u}) && \text{by (6d)} \\
 &= S_{i+u} - S_i && \text{by (6e)} \\
 &= S_u
 \end{aligned}$$

Note that the opposite order of function application (first **DIST**, then **PROX**) is not coherent. **DIST** applied to  $S_{i+u+o}$  yields  $S_{i+u+o} - S_{i+u}$ . But as this set is not layered, **PROX** cannot apply to it.

We assume that the ‘person space’ in (6a) is introduced by a node we refer to as  $N_{\Pi}$ . Person features are introduced in a **PRS** node that selects  $N_{\Pi}$ . The basic semantics of this node is the identity function  $\lambda P.P$ , but this specification can be enriched through function composition if **PROX** and/or **DIST** are added. The order of function application is reflected in syntax. The notation we use for this is borrowed from feature geometry (Gazdar & Pullum 1982; Harley & Ritter 2002): features representing functions applied later are dominated by features representing functions applied earlier:

(9) Singular



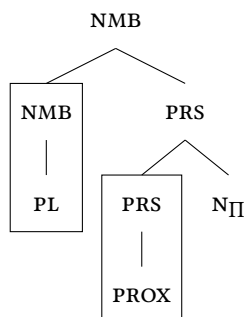
We now turn to plural pronouns. For now, we assume that number is encoded through an **NMB** node, which is merged above **PRS** and which can host a feature

PL (but see §3). If this feature is present, the cardinality of the output set of the person system must be larger than one.

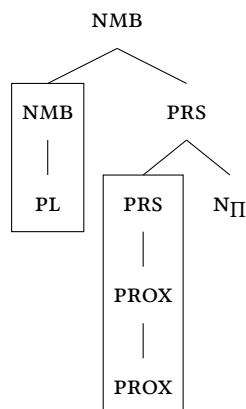
In the second and third person, the person specification in the plural is the same as the person specification in the singular. In the first person, however, there are two options. Suppose that the plural feature is simply added to the singular form in (9a), where PROX is applied twice. This delivers  $S_i$ , a set containing the speaker and in the plural also any contextually given associates, but no addressee. The result is an exclusive first person pronoun. Another option is to apply PROX only once. This delivers  $S_{i+u}$ , a set containing the speaker, at least one addressee, and any associates. The resulting pronoun is a first person inclusive:

(10) Plural

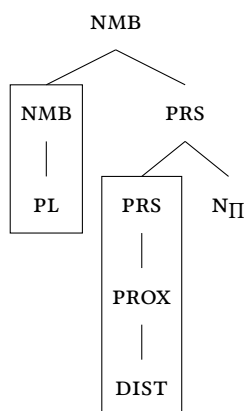
a. 1<sup>st</sup> person inclusive



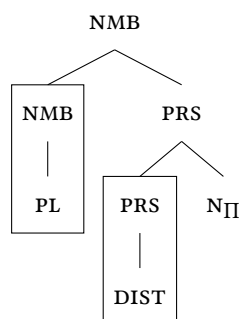
b. 1<sup>st</sup> person exclusive



c. 2<sup>nd</sup> person



d. 3<sup>rd</sup> person



Note that the option of applying PROX only once in the first person is incompatible with a singular reading. Such a derivation has as its output  $S_{i+u}$ , a set with two obligatory members.

The system just outlined exhausts the feature structures made available by the person system. No structures other than those in (9) and (10) deliver an interpretable output. Consider why. Both PROX and DIST require a layered input set. Given that  $S_{i+u+o}$  has only three layers, the number of possible feature combinations is restricted. If DIST is applied first, this delivers an unstructured set ( $S_{i+u+o} - S_{i+u}$ ), and hence neither PROX nor DIST can apply subsequently. If PROX is applied first, the output is a layered set ( $S_{i+u}$ ). This leaves open three possibilities: (i) PROX applies again, which yields an unstructured set ( $S_i$ ), or (ii) DIST applies, which again yields an unstructured set ( $S_{i+u} - S_i$ ), or (iii) neither PROX nor DIST applies, which delivers the first person inclusive.

As a result, the following generalizations about person distinctions expressed in pronouns follow (adapted from Bobaljik 2008):

- (11) a. No language distinguishes pronouns expressing  $i+i$  and  $i+a_i$ .
- b. No language distinguishes pronouns expressing  $u+u$  and  $u+a_u$ .
- c. No language distinguishes pronouns expressing  $i+i+u$ ,  $i+u+u$  and  $i+u+a_{i/u}$ .

In the system just outlined, the first person (inclusive or exclusive) does not form a natural class with the third person to the exclusion of the second person. Similarly, the first person inclusive does not form a natural class with the second person to the exclusion of the first person exclusive. This is relevant in view of the results of a large-scale study reported in Harbour (2016). Harbour looked at which systematic patterns of syncretism are attested cross-linguistically, where a systematic pattern of syncretism is a syncretism characteristic of all paradigms of a given language. He found that no language had a systematic syncretism for first and third person, or for first person inclusive and second person. On the assumption that the distribution of systematic syncretisms reflects the underlying distribution of features, this shows that no set of features is shared uniquely by the relevant combinations of persons.

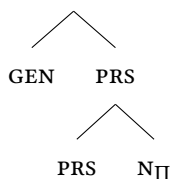
The absence of systematic syncretisms for first person inclusive and second person is in line with a typological generalization discussed by Zwicky (1977). Zwicky argues that in languages that lack the distinction between inclusive and exclusive first person pronouns, the inclusive reading is systematically expressed by the first person, rather than the second person plural pronoun – this despite the fact that the inclusive reading covers both speaker and addressee. An account



for this observation would be impossible if first person inclusive and the second person did form a natural class to the exclusion of the first person exclusive.<sup>2</sup>

For the purposes of this paper, the main characteristic of our person system is that third person has a person specification, namely [DIST]. We should note that this does not mean that there are no pronouns that lack person features. One would expect there to be such pronouns, especially in an analysis based on privative features. In Ackema & Neeleman (2018), we argue that a particular type of generic pronoun should be analyzed in this way (see also Egerland 2003 and D’Alessandro 2007). English *one*, West Frisian *men* (Hoekstra 2010) and Icelandic *maður* (Sigurðsson & Egerland 2009) are examples: in the absence of person features, the generic operator contained in them ranges over the entire person space ( $S_{i+u+o}$ ).

(12) Generic ONE



### 3 The number system

We now turn to the number system. We will argue that, like the person system, it is based on privative features that are interpreted as functions. We will show that in this system there cannot be a feature that encodes singularity. Rather, singular is one of the interpretations that results from the absence of a number feature specification.

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<sup>2</sup>Strictly speaking, in order to capture Zwicky’s generalization, not only the syntactic feature system, but also the system of morphological realization (spell out) must be considered. In fact, there is a way of constructing grammars that violate the generalization in our system, namely by impoverishment of DIST in the context of both PL and PROX (so in the second person plural). In a language that has distinct spell-out rules that apply to the feature structures [PROX] and [PROX-PROX], this will create a formal opposition between first person exclusive on the one hand, and first person inclusive and second person on the other. Interestingly, Sanuma appears to have a pronominal spell-out system of this type (see Borgman 1990: 149 and Simon 2005: 127; see Perri Ferreira 2013 for critical discussion of Borgman’s observations). However, in the absence of the particular set of circumstances described above, we expect Zwicky’s generalization to hold, and we therefore expect it to be valid at least as a statistical universal.

In languages that make a distinction between inclusive and exclusive first person pronouns, two types of number system are found. The difference between these systems involves the interpretation of number in the inclusive. In what we will call absolute number systems, the inclusive is always marked as either dual or plural. Maori provides an example (Table 1; Maori paradigm from Cysouw 2003: 91).

Table 1: Maori pronouns

	Singular [ ]	Plural [PL]	Dual [PL MIN]
1 inclusive	-	tā-ua	tā-tou
1 exclusive	au	ā-ua	mā-tou
2	koe	kōr-ua	kou-tou
3	ia	rā-ua	rā-tou

As indicated, absolute number systems can in principle be analyzed using two features, PL (for ‘plural’) and MIN (for ‘minimal’), which we take to be hosted by a dedicated functional head NMB. PL encodes that the cardinality of the set referred to, which we will represent as  $n$ , exceeds 1 ( $n > 1$ ). MIN selects the minimal plural ( $n = 2$ ).

There is a second type of number system, which we will refer to as a relative number system. In such a system, the interpretation of number marking seems dependent on person, with a shift in the inclusive that is absent in the other persons. In particular, the inclusive pronoun need not be inflected for number. If it is, its cardinality is larger than two, whereas in other pronouns, number marking implies a cardinality larger than one. The Rembarrnga paradigm (see Cysouw 2003: 233) in Table 2 illustrates the point.

Table 2: Rembarrnga pronouns

	Singular	Plural	Dual	Trial
1 inclusive	-	yukku	ngakorru	ngakorr-bbarrah
1 exclusive	ngunu	yarru	yarr-bbarrah	
2	ku	nakorru	nakorr-bbarrah	
3	nawu/ngadu	barru	barr-bbarrah	

Such number systems are typically analyzed using the MIN feature already mentioned and – instead of PL – a feature AUG for ‘augmented’ (see Bobaljik

2008 and Cysouw 2011, and references mentioned there). AUG indicates that  $n$  is larger than the minimal cardinality allowed by the person system. Except in the inclusive, the minimal cardinality allowed by the person system is one, and so AUG delivers  $n > 1$ . In the inclusive, however, the minimal cardinality allowed by the person system is two, so AUG delivers  $n > 2$ . On this analysis, the Rembarrnga paradigm looks much more elegant (Table 3).

Table 3: Rembarrnga pronouns

	Non-aug. [ ]	Augmented [AUG]	Unit-augmented [AUG MIN]
1 inclusive	yukku	ngakorru	ngakorr-bbarrah
1 exclusive	ngunu	yarru	yarr-bbarrah
2	ku	nakorru	nakorr-bbarrah
3	nawu/ngadu	barru	barr-bbarrah

If we were to accept both the feature systems in Table 1 and 3, the resulting proposal would model parametric variation between absolute and relative number systems as a choice between features (PL versus AUG). However, this would make the parametrization of the number system something of an oddity. Our impression is that in other cases where feature systems are parametrized, languages select more or fewer features from a fixed inventory, rather than choosing between features that cannot co-occur in the same grammar. We propose to fix this problem by assuming that AUG is universal and that PL does not exist. However, the effects of AUG are dependent on information from the person system. If AUG has no access to the person system, then its interpretation defaults to the interpretation normally assumed for PL. This idea can be worked out as follows.

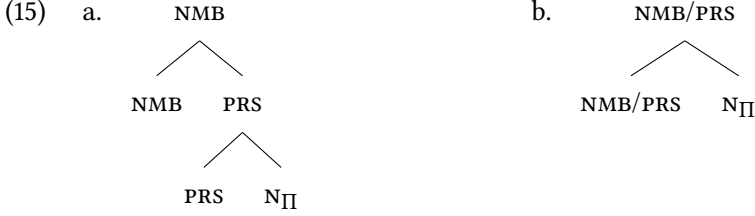
The input set for the number system is  $N$ . The features AUG and MIN select a subset from  $N$  in accordance with the definitions in (13a,b). The cardinality of the set delivered by the person system must be an element of this subset.

- (13) a.  $AUG(S) = S', S' \subseteq S, n \in S' \iff n > n_R$   
b.  $MIN(S) = S', S' \subseteq S, n \in S' \iff n > 0 \wedge \nexists n', n' \in S \wedge n' < n$

As indicated in (13a), AUG refers to a reference number  $n_R$ , whose value is determined by the following procedure ( $S_{\text{person}}$  is the output of the person system):

- (14) a.  $n_R = n_{\text{person}}$  iff  $n_{\text{person}}$  is accessible and  $n_{\text{person}} > 0$ ; otherwise  $n_R = 1$   
b.  $n_{\text{person}} = |\text{strip}(S_{\text{person}})|$   
c.  $\text{strip}(S_{\text{person}}) = S', S' \subseteq S_{\text{person}}, p \in \{i, u\} \iff p \in S'$

The accessibility of person information depends on the functional structure of the pronoun. We assume, following Platzack (1983) and others, that there is parametric variation in whether certain functional heads project separately or conflate and project together. Applied to NMB and PRS, this gives the possible structures for pronouns in (15).



Our hypothesis is that  $n_{\text{person}}$  is accessible to AUG if and only if NMB and PRS conflate, so that AUG is located in the same node as the person features that deliver  $S_{\text{person}}$ . Given the definitions in (14), this means that only in (15b) can  $n_R$  assume a value other than 1.

Consider how this plays out in absolute and relative number systems, respectively. The situation in absolute number systems is straightforward, as  $n_R$  is always 1 (by default, as AUG has no access to person information):

(16) *Absolute number system – (15a)*

- $n_R = 1$  (by default)
- NMB–AUG:  $n > 1$
- NMB–AUG–MIN:  $n = 2$

In relative number systems, AUG does have access to the person system, which means that  $n_R$  varies depending on person, along the following lines:

(17) *Relative number system – (15b)*

a. First person inclusive:

- $n_{\text{person}} = |\text{strip}(\{i, a_i+, u, a_u+\})| = |\{i, u\}| = 2$
- $n_R = n_{\text{person}} = 2$
- NMB–AUG:  $n > 2$
- NMB–AUG–MIN:  $n = 3$

b. First person exclusive:

- $n_{\text{person}} = |\text{strip}(\{i, a_i+\})| = |\{i\}| = 1$
- $n_R = n_{\text{person}} = 1$
- NMB–AUG:  $n > 1$
- NMB–AUG–MIN:  $n = 2$

c. Second person:

- $n_{\text{person}} = |\text{strip}(\{u, a_u+\})| = |\{u\}| = 1$
- $n_R = n_{\text{person}} = 1$
- NMB-AUG:  $n > 1$
- NMB-AUG-MIN:  $n = 2$

d. Third person:

- $n_{\text{person}} = |\text{strip}(\{o+\})| = |\{\}\rangle = 0$
- $n_R = 1$  (by default)
- NMB-AUG:  $n > 1$
- NMB-AUG-MIN:  $n = 2$

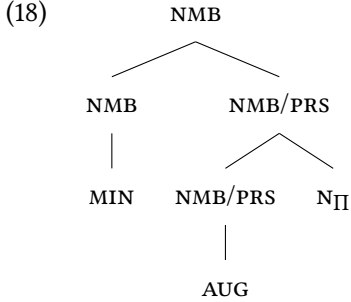
When the semantics of number in (15b) is computed, the value of  $n_{\text{person}}$  is accessible to AUG, because PRS is part of the same terminal node. This has an effect for the interpretation of number in the first person inclusive. Since applying PROX once delivers a set with  $i$  and  $u$  as obligatory members (see (10a)),  $n_R = n_{\text{person}} = 2$  here. The consequence is that AUG requires that  $n > 2$ . When the semantics of the terminal containing AUG in the structures in (15a) is computed, however, the value of  $n_{\text{person}}$  is not accessible, because [PRS-PROX] is generated in a sister node. This means that  $n_R$  assumes its default value of 1, also in the first person inclusive, so that AUG now requires that  $n > 1$ .

Our analysis makes a crucial prediction about the morphological form of pronominal number. In absolute systems, plural can be either agglutinative or fusional. If the terminals introducing person and number are spelled out separately, an agglutinative number paradigm will emerge; if spell-out targets a string of terminals or a non-terminal node (on a par with  $\{\text{go PAST}\} \Leftrightarrow \text{went}$ ), the number morphology will be fused with the person morphology. If person and number are introduced in the same terminal, however, as is the case in relative systems, they *must* be fusional (there is no position in which a distinct number morpheme could be anchored).<sup>3</sup> We predict, then, that if number marking is agglutinative in pronouns, the number system must be of the absolute type. This prediction appears to be confirmed by the discussion in Cysouw (2003: 89, 263), where it is noted that languages that have a relative number system and are agglutinative for AUG are extremely rare, if they exist at all (see also Greenberg 1988).

Note that it *is* possible for a relative number system to be agglutinating for MIN, as MIN need not have access to person information, but only to the output

<sup>3</sup>This is under the assumption that an operation like fission, as used in Distributed Morphology (see Halle & Marantz 1993 and Noyer 1997), either does not exist or must give rise to instances of multiple exponence, which is not at issue here.

of AUG. Hence, a language can have an interpretable structure in which NMB and PRS are partially conflated, as in (18).



Languages with a relative number system that have agglutinative morphology for MIN indeed exist; the Rembarnga paradigm in Table 3 provides an example.

In sum, the AUG feature is shared by all number systems, but its interpretive effects depend on whether or not it has access to information delivered by the person features, which in turn depends on the syntactic structure of pronouns. Notice that in this system singular and non-augmented must both equal the absence of AUG. There cannot be a contentful privative feature that characterizes singular and non-augmented number, given that the interpretation of these numbers as  $n=1$  or  $n=2$  is determined fully by the interpretation of AUG. Therefore, the default in the number system is characterized by the absence of a feature specification.

## 4 Defaults

If we are correct in assuming that singular is a non-number, while third person has a feature specification, the question arises why both are defaults. In order to address this question, we must first consider what a default is. There are several views of this; the following three are probably the most common.

- (i) Defaults are the most frequent forms. It is not clear what insight that can provide here.
- (ii) Defaults correspond to absence of features. This is an attractive idea, but it cannot work on our view of person, as the third person has feature content.
- (iii) Defaults correspond to feature structures that do not force an interpretation. This is the view we will defend.

Our core assumption is that only if a  $\varphi$ -feature structure may denote an empty set can it fail to be interpreted, and hence act as default. In the person system, [DIST] is the only feature structure that can deliver an empty set. DIST selects the outer layer in (6), discarding the only obligatory members of  $S_{i+u+o}$ , speaker and addressee. As  $o$  is optional, [DIST] may deliver an empty set. All other specifications deliver a set that contains either  $i$  or  $u$  or both and can therefore not act as a default. This holds, even, for a specification in which PRS does not contain person features, as this delivers a generic impersonal pronoun that ranges over the entire  $S_{i+u+o}$  input set, see (12).

In the number system, [ ] is the only feature structure that can deliver an empty set. [AUG] and [AUG-MIN] impose a positive cardinality on the output of the person system. However, [ ] does not, and is therefore compatible with a cardinality of 0 in both absolute and relative number systems, regardless of person specification.

## 5 Multiple agreement, single spell-out

We have argued that third person has a feature specification, as opposed to singular number, and explained why nevertheless both can function as defaults. We now show how the asymmetry in feature specification plays out in agreement.

Nevins (2011) discusses so-called omnivorous number systems, in which a verb shows plural agreement when either subject or object is plural (see 19)).

(19) Eastern Abruzzese (D'Alessandro & Roberts 2010)

- a. Giuwanne a pittate nu mure.  
John has painted.sg a wall
- b. Giuwanne e Mmarije a pittite nu mure.  
John and Mary have painted.PL a wall
- c. Giuwanne a pittite ddu mure.  
John has painted.PL two walls
- d. Giuwanne e Mmarije a pittite ddu mure.  
John and Mary have painted.PL two walls

Like Nevins, we assume that data like (19) involve multiple agreement. We further assume that this leads to a situation in which one morpho-phonological agreement slot must realize two distinct feature bundles:

- (20) a.  $DP_1 \dots V-\varphi_1-\varphi_2 \dots DP_2$   
 b.  $V-\varphi_1-\varphi_2 \Leftrightarrow /V/-/affix/$

In general, where one form realizes two feature bundles either unification is necessary or arbitration by rules of resolution. We begin by discussing unification. In the next section, we will discuss resolution rules.

We assume that unification is either unification of sets of syntactic feature structures or of phonological forms. The syntactic unifications relevant to the data in (19) are given below. These can all be realized without difficulty, as a singular form in (21a) and a plural form in (21b-d):

- (21) a.  $V-[ ]_1-[ ]_2 \rightarrow V-[ ]_{1+2}$   
 b.  $V-[AUG]_1-[ ]_2 \rightarrow V-[AUG]_{1+2}$   
 c.  $V-[ ]_1-[AUG]_2 \rightarrow V-[AUG]_{1+2}$   
 d.  $V-[AUG]_1-[AUG]_2 \rightarrow V-[AUG]_{1+2}$

Given that third person is different from singular in that it does have feature content, syntactic unification in parallel cases involving person can result in feature bundles with multiple person specifications:

- (22) a.  $V-[DIST]_1-[DIST]_2 \rightarrow V-[DIST]_{1+2}$   
 b.  $V-[DIST]_1-[PROX (...)]_2 \rightarrow V-[DIST \text{ PROX } (...)]_{1+2}$

While realization of the output in (22a) is unproblematic, the feature specification in (22b) makes spell-out impossible, on the assumption that the process is blocked if a single agreement slot contains multiple feature bundles for the same class of  $\varphi$ -features.<sup>4</sup> This means that where the input contains conflicting person specifications, spell-out cannot proceed on the basis of syntactic unification. Instead, phonological unification is necessary. Hence the structure in (22b) can be realized only if the spell-out rules for  $[DIST]$  and  $[PROX (...)]$  deliver the same phonological form:

- (23) a.  $\{DIST\} \Leftrightarrow /aaa/$   
 b.  $\{PROX(...)\} \Leftrightarrow /aaa/$   
 c.  $V-[DIST]_1-[PROX (...)]_2 \Leftrightarrow /V/-/aaa/$

<sup>4</sup>Note that there is a fundamental difference between the feature specification  $[DIST \text{ PROX}]$  in (22b) on the one hand and the feature specification  $[PROX-DIST]$  (second person) on the other. The former contains two (simplex) feature bundles (for third and first person), with the result that spell-out is blocked.



There are other situations in which a derivation converges if a single phonological element can realize multiple conflicting syntactic feature bundles; an example involves case morphology on free relatives in German, see Groos & van Riemsdijk (1981).

We will now discuss instances of (22) and (23). In particular, we will consider two structures in which a low DP must have the same person specification as imposed on the verb by the subject in a double agreement structure.<sup>5</sup> One is the Dutch cleft construction already introduced in (3). The other involves the well-known case of nominative objects in Icelandic. Let us start with the latter.

Agreement with nominative objects in Icelandic is possible when the subject carries quirky case. However, such agreement is usually impossible with first or second person objects:<sup>6</sup>

(24) Icelandic (Sigurðsson & Holmberg 2008)

- a. \*Honum líkum við.  
him.DAT like-1PL we.NOM  
'He likes us.'
- b. \*Honum líkið þið.  
him.DAT like-2PL you.PL.NOM  
'He likes you all.'
- c. Honum líka þeir.  
him.DAT like-3PL they.NOM  
'He likes them.'

We follow a strand in the literature according to which the verb agrees with both the quirky subject and the nominative object (see Burzio 2000, Schütze 2003, and Ussery 2013). Thus, Icelandic agreement is regulated by two rules: (i) agree

<sup>5</sup>In contrast, there are no similar cases in which a low DP must have the same number specification as the subject. This follows from the hypothesis that singular is absence of number features. Nevins (2011) proposes an analysis of relevant person-number contrasts along similar lines. His account assumes that the person system is built on bivalent features, while features in the number system are privative, with singular lacking number. The above preserves the insights of Nevins' proposal while avoiding this duality of design. Both the person system and the number system have privative features, and there is a principled reason why singular is featureless while third person has content.

<sup>6</sup>D'Alessandro (2007) shows that impersonal *si* constructions in Italian behave in a fashion parallel to the Icelandic examples discussed below: *si* triggers default third person singular agreement, and when the object is nominative the verb agrees in number with it. Crucially, in the latter case the object cannot be first or second person. Any adequate analysis proposed for Icelandic can therefore be extended to Italian impersonal constructions, as indeed argued by D'Alessandro.

with the subject; (ii) agree with nominatives. Non-nominative DPs trigger default third person singular agreement, presumably because they differ from nominatives in having a Case shell which prevents access to their  $\varphi$ -features. Therefore, quirky subjects behave just like other categories that lack  $\varphi$ -features, such as clausal subjects. Indeed, in examples with a quirky subject in which the object is not nominative, the verb must carry third person singular inflection:

(25) (Schütze 2003)

Mig hefur / \*hef / \*hafa vantað mýts.  
me.ACC has-3SG / \*1SG / \*3PL lacked mice.ACC  
'I have lacked mice.'

Structures like those in (24), which involve agreement with both a quirky subject and a nominative object, will then have a verb that carries two distinct  $\varphi$ -feature bundles, one of which will be [DIST] (KP stands for 'Case Phrase', in this structure the quirky subject):

(26)  $KP_1 \dots V-[DIST]_1-\varphi_2 \dots DP_2$

Whether or not (26) can be realized depends on the content of  $\varphi_2$ . Consider the various possibilities listed in (27).

- (27) a.  $KP_1 \dots V-[DIST]_1-[DIST]_2 \dots DP_2$   
b.  $KP_1 \dots V-[DIST]_1-[DIST\ AUG]_2 \dots DP_2$   
c.  $KP_1 \dots V-[DIST]_1-[PROX (...)]_2 \dots DP_2$

Syntactic unification of feature bundles applied to these structures yields the following:

- (28) a.  $KP_1 \dots V-[DIST]_{1+2} \dots DP_2$   
b.  $KP_1 \dots V-[DIST\ AUG]_{1+2} \dots DP_2$   
c.  $KP_1 \dots V-[DIST\ PROX (...)]_{1+2} \dots DP_2$

The feature bundles in (28a) and (28b) are unproblematic as far as spell-out is concerned. The feature bundle in (28c) is not, however, as it contains contradictory values for person. This means that spell-out must proceed on the basis of the non-unified structure in (27c). But that will only meet the condition that there be a single affix if phonological unification is possible, which is only the case if the phonological realization of  $[DIST]_1$  is identical to the phonological realization of  $[PROX (...)]_2$ .

Indeed, Sigurðsson (1996) observes that the person restriction on object agreement is lifted (for many speakers) when the first/second person form of the verb is syncretic with the third person form:<sup>7</sup>

- (29) a. bored.at-3SG  $\Leftrightarrow$  /leiddist/ (Sigurðsson 1996)  
 b. \* Henni leiddumst við.  
     her.DAT bored.at-1PL we.NOM  
 c. % Henni leiddust þið.  
     her.DAT bored.at-2PL you-PL.NOM  
 d. ? Henni leiddist ég.  
     her.DAT bored.at-1SG I.NOM  
 e. ? Henni leiddist þú.  
     her.DAT bored.at-2SG you-sg.NOM

Agreement with lower nominative DPs does not only occur in mono-clausal, but also in bi-clausal structures with a raising verb. In such structures, the same person restriction is observed as in mono-clausal structures (see (30)).

- (30) a. (Sigurðsson & Holmberg 2008)  
     \* Honum mundum virðast við (vera) hæfir.  
     him.DAT would.1PL seem we.NOM (be) competent  
 b. \* Honum munduð virðast þið (vera) hæfir.  
     him.DAT would.2PL seem you.PL.NOM (be) competent  
 c. Honum mundu virðast þeir (vera) hæfir.  
     him.DAT would.3PL seem they.NOM (be) competent  
     ‘They would seem to be competent to him.’

Interestingly, many speakers allow suspension of agreement with the nominative in the bi-clausal construction. Crucially, the person restriction disappears in

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<sup>7</sup>Note that the fact that syncretism prevents the problem with conflicting person features indicates that the solution should not be sought in syntax proper. This rules out a number of accounts that attempt to deal with such data in terms of an intervention effect, such as Sigurðsson & Holmberg 2008. While the relevant syncretism in Icelandic is a relatively rare phenomenon, we will see below that in a similar situation in Dutch clefts, syncretism indeed systematically ameliorates person clashes. An analysis should therefore not centre on a putative problem with syntactically establishing the agreement relation(s) in question, but on a problem with how these relations are expressed on the verb.

that case (see (31)). This is as expected: if there is only agreement with the quirky subject, there cannot be conflicting feature bundles in the verb.

(31) (Sigurðsson & Holmberg 2008)

- a. Honum mundi virðast við (vera) hæfir.  
him.DAT would.3SG seem we.NOM (be) competent
- b. Honum mundi virðast þið (vera) hæfir.  
him.DAT would.3SG seem you.PL.NOM (be) competent
- c. Honum mundi virðast þeir (vera) hæfir.  
him.DAT would.3SG seem they.NOM (be) competent

Sigurðsson & Holmberg (2008) observe that there is considerable variation in whether suspension of agreement is allowed, preferred or required. In one variant (their Icelandic C), agreement with low nominatives is dispreferred in general, even in mono-clausal constructions. We predict that in that variant there should not be a person restriction on nominative objects at all. This appears to be in line with Sigurðsson and Holmberg's assessment of the relevant data.

Dutch clefts show almost the same pattern of core observations as Icelandic quirky subject constructions (see also den Dikken 2014). They have the following properties.

- (i) Number agreement with a clefted nominative is obligatory (see (32)).
- (ii) If there is unambiguous person agreement, first and second person nominatives cannot be clefted (see (33)).
- (iii) Some speakers allow suspension of person agreement with clefted nominatives. In that case, there is no person restriction (hence the %-sign on the variants with third singular *is* in (33a,b)).
- (iv) Where the verb forms triggered by the pronoun in subject position (*het* 'it') and by the clefted nominative DP are identical, the person restriction is lifted for all speakers. This is the case with some modal verbs and in the past tense (see (34)).

(32) Dutch

Het zijn / \*is zij die de whisky gestolen hebben.  
it are.PL / is they that the whisky stolen have  
'It's them who stole the whisky.'

- (33) a. Het <sup>%</sup>is / \*ben ik die de whisky gestolen heeft.  
 it is / am I that the whisky stolen has  
 ‘It’s me who stole the whisky.’  
 b. Het <sup>%</sup>is / \*ben(t) jij die de whisky gestolen heeft.  
 it is / are.SG you.SG that the whisky stolen has  
 ‘It’s you who stole the whisky.’  
 c. Het is hij die de whisky gestolen heeft.  
 it is he that the whisky stolen has  
 ‘It’s him who stole the whisky.’
- (34) a. Het zal ik / jij wel geweest zijn die de whisky gestolen  
 it will I / you.SG indeed been be who the whisky stolen  
 heeft.  
 has  
 ‘It is likely that it was me/you who stole the whisky.’  
 b. Het was ik / jij die de whisky gestolen heeft.  
 it was I / you.SG who the whisky stolen has  
 ‘It was me/you who stole the whisky.’

These data allow an analysis similar to that proposed for Icelandic. Dutch requires agreement with the subject and (usually) agreement with nominatives. If the clefted constituent is a nominative DP, this yields the following representation:

- (35) *het*<sub>1</sub> ... V-[DIST]<sub>1</sub>- $\varphi_2$  ... DP<sub>2</sub> [CP (*Op*<sub>2</sub>) ... *t*<sub>2</sub> ...]

This structure can be realized without problems if the syntactic unification of [DIST]<sub>1</sub> and  $\varphi_2$  delivers a feature bundle that does not contain multiple person specifications (i.e. when  $\varphi_2$  is [DIST (AUG)]). Where syntactic unification does not lead to such a feature bundle, the derivation may converge under phonological unification (i.e. when  $/[\text{DIST}]_1/ = / \varphi_2/$ ). If neither type of unification allows spell-out, the derivation crashes. This accounts for the person restriction observed in (33). Some speakers allow agreement with the clefted nominative to be suspended under these circumstances (through deletion of  $\varphi_2$ ). For those speakers, first and

second person singular clefted nominatives may show up with a third person singular copula:<sup>8</sup>

- (36) *het*<sub>1</sub> ... V-[DIST]<sub>1</sub> ... DP<sub>2</sub> [<sub>CP</sub> (*Op*<sub>2</sub>) ... *t*<sub>2</sub> ...]

There is an interesting twist in the plural. Here, all speakers require number agreement, but there are no effects of the person restriction:

- (37) *Het zijn* / \**is wij / jullie die de whisky gestolen hebben.*  
 it are.PL / *is we / you.PL* that the whisky stolen have  
 ‘It’s us/you who stole the whisky.’

These data have no parallel in Icelandic quirky subject constructions and cannot be accounted for through phonological unification, since the third person singular form of the copula is *is* and the first/second person plural form is *zijn*. However, in contrast to Icelandic, Dutch shows full neutralization of person distinctions in the plural, as illustrated for the copula in (38). This fact can be accounted for in terms of two rules of impoverishment that delete person features in the context of AUG, as in (39).

- (38) a. *Ik ben even weg.*  
 I am momentarily away  
 ‘I am out at the moment.’  
 b. *Jij bent even weg.*  
 you are momentarily away

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<sup>8</sup>In Icelandic clefts, there is always full agreement between the copula and the clefted constituent. In contrast to sentences with a quirky subject and nominative object, there is no evidence for a person clash (Jóhannes Jónsson, Sigríður Sigurjónsdóttir and Höskuldur Þráinsson, p.c.):

- (i) *Í gær varst það þú sem tókst bókina.*  
 yesterday was.2SG it you that took.2SG book.DEF  
 ‘Yesterday it was you who took the book.’

Apparently, then, Icelandic clefts also permit deletion of one of the  $\varphi$ -feature bundles in the verb before spell-out, but as opposed to the relevant variety of Dutch, it is the agreement with the subject that is suppressed in Icelandic, rather than the agreement with the nominative predicate. This gives rise to the question why the same deletion is not allowed in quirky subject constructions. One possibility is that this is related to the fact that the agreement induced by such a subject is default agreement. Arguably, default agreement cannot be deleted because it is not recoverable, as opposed to regular agreement, which reflects features of the controller.

- (39) a. PROX → ∅ / \_\_\_\_ [AUG]  
       b. DIST → ∅ / \_\_\_\_ [AUG]

If the rules in (39) apply to the output of syntactic unification of the two feature bundles on the verb, they will remove the conflicting person specifications, leaving only [AUG], and therefore the structure will be realized with the plural form of the copula. We give the derivation for a case with a clefted first person plural pronoun in (40).<sup>9</sup>

- (40) a. *het*<sub>1</sub> ... V-[DIST]<sub>1</sub>-[PROX AUG]<sub>2</sub> ... DP<sub>2</sub> [CP (*Op*<sub>2</sub>) ... *t*<sub>2</sub> ...] (syntactic output)  
 b. *het*<sub>1</sub> ... V-[DIST PROX AUG]<sub>1+2</sub> ... DP<sub>2</sub> [CP (*Op*<sub>2</sub>) ... *t*<sub>2</sub> ...] (after unification)  
 c. *het*<sub>1</sub> ... V-[AUG]<sub>1+2</sub> ... DP<sub>2</sub> [CP (*Op*<sub>2</sub>) ... *t*<sub>2</sub> ...] (after application of (39))

In summary, third person agreement can induce a person clash in cases of multiple agreement, while singular number agreement never induces a number clash. This confirms that third person has a feature specification, while singular number does not. However, not all cases of multiple agreement give rise to person clashes. Sometimes, conflicts in person specification are resolved by rules that operate before spell-out, which delete one of the problematic feature bundles. In the next section, we will explore such rules of resolution.

## 6 Omnivorous person agreement

While we have seen that there is an asymmetry between person and number in that person clashes in agreement exist, but number clashes do not, it is not the case that multiple agreement for different persons necessarily leads to ungrammaticality. Some languages allow resolution of a potential clash on the basis of a

<sup>9</sup>The person restriction discussed above for Dutch clefts is also absent when the pronoun used as subject is not the weak pronoun *het* ‘it’ but the strong pronoun *dat* ‘that’. Arguably, this is because the strong pronoun is a fronted (accusative) predicate, so that in this construction the postverbal DP (the subject) is the only agreeing element; see Ackema & Neeleman (2018) for discussion.

person hierarchy: the feature structure highest on the hierarchy is realized, while the feature structure lower on the hierarchy is not.

A good example is the agreement system in Ojibwe, which is sensitive to a person hierarchy  $2 > 1 > 3$  (see Valentine 2001, among others). The agreement morphology on the Ojibwe verb reflects features of both its subject and object. That there must be simultaneous subject and object agreement is clearest when considering the so-called theme sign on the verb. This is a suffix that expresses the relative position of subject and object on the person hierarchy. In particular, when the subject is higher on this hierarchy than the object, a ‘direct’ theme-sign appears, while an ‘inverse’ form appears when the object is higher on the hierarchy. The form of the theme sign is also determined by whether or not both arguments are ‘local’ persons (first or second) or only one of them is. Thus, the distribution in Table 4 of theme signs obtains (adapted from Lochbihler 2008).

Table 4: Ojibwe theme signs

	Subject outranks object	Object outranks subject
Both subject and object are 1 or 2.	<i>-i</i>	<i>-in(i)</i>
Either subject or object is 3.	<i>-aa</i>	<i>-igw</i> (and allomorphs)

This simultaneous sensitivity to the features of subject and object can only be accounted for under the assumption that both agree with the verb. Only if the features of both arguments are represented in the verb is it possible to have a spell-out system for the verbal agreement that is based on a comparison of their position on the person hierarchy. For the theme-sign suffixes, then, resolution of person clashes is achieved by spell-out rules that insert a single morpheme as the realization of pairs of feature bundles.

In addition to the theme-sign suffix, the Ojibwe verb also carries a prefix that expresses person agreement. Interestingly, this prefix shows omnivorous person effects: it expresses agreement with the argument that is highest on the person hierarchy, regardless of whether this is the subject or the object (*g-* realizes second person, *n-* first person, *w-/Ø-* third person). Given the discussion above, we know that the person features of both subject and object are represented in the verb. Hence, the behavior of the Ojibwe prefix shows that resolution of a person clash can also consist of non-realisation of the feature structure lower on the



person hierarchy. The following examples illustrate the system (from Valentine 2001, cited here from Lochbihler 2008):

- (41) Ojibwe
- a. *n-waabm-aa*  
1-see-DIR  
'I see him.'
  - b. *n-waabm-ig*  
1-see-INV  
'He sees me.'
- (42)
- a. *g-waabam-i*  
2-see-DIR(local)  
'You see me.'
  - b. *g-waabm-in*  
2-see-INV(local)  
'I see you.'

Not all languages that allow resolution of person clashes on the basis of a hierarchy make use of the same hierarchy. There is one cross-linguistic constant, though: third person is outranked by both first and second. The variation lies in the ranking of first and second person, as follows:

- (43)
- a.  $2 > 1 > 3$  (example: Ojibwe, see above)
  - b.  $1 > 2 > 3$  (example: Nocte, see below)
  - c.  $1,2 > 3$  (example: Kaqchikel, see below)

We suggest that this cross-linguistic variation comes about through variation in weighting of the two conditions in (44). (For the purpose of (44b), a feature structure is less uniform if it contains instances of more features.)

- (44)
- a. PROX outranks DIST.
  - b. Less uniform feature structures outrank more uniform feature structures.

A constraint equivalent to (44a) is present in some form or other in most any theory of person hierarchies, sometimes expressed directly and sometimes expressed in the order of functional projections, or in the order of probing of features (see below). The constraint in (44b) may look unfamiliar, but it is an instantiation of the general idea that feature structures containing more features are

marked compared to feature structures containing fewer. The only innovation is that markedness is assumed not to increase with repetition of the same feature, as in the first person exclusive (characterized by [PROX-PROX], see §2).

If the first condition in (44) is more important than the second, the resulting hierarchy will be  $1 > 2 > 3$ . This is because first person is maximally marked according to this principle, as it contains only instances of PROX. By contrast, third person is maximally unmarked, as it contains only DIST. Second person is in between, as it contains both PROX and DIST. If the second condition in (44) is more important, second person will be highest in the hierarchy, as this is the only person with a non-uniform feature structure. The relative ranking of first and third person is still determined by the first condition, so that the result is a hierarchy  $2 > 1 > 3$ . Finally, if the two conditions are equally weighted, a hierarchy results in which first and second person are ranked equally, and are both ranked above third person.

Nocte is an example of a language that is like Ojibwe, but with first and second person reversed on the hierarchy (that is, it uses a  $1 > 2 > 3$  hierarchy). The following data (from DeLancey 1981: 641, cited here from Croft 2003: 172) illustrate this:

(45) Nocte

- a. Nga-ma ate hetho-ang.  
1SG-ERG 3SG teach-1  
'I will teach him.'
- b. Ate-ma nga-nang hetho-h-ang.  
3SG-ERG 1SG-ACC teach-INV-1  
'He will teach me.'
- c. Nang-ma nga hetho-h-ang.  
2SG-ERG 1SG teach-INV-1  
'You will teach me.'
- d. Nga-ma nang hetho-e.  
1SG-ERG 2SG teach-1PL  
'I will teach you.'

As in Ojibwe, an inverse marker appears on the verb in case the object is higher on the person hierarchy than the subject, the only difference being that, since the hierarchy is  $1 > 2 > 3$  in Nocte, the inverse marker is used when the subject is second person and the object first person. As before, the presence of this kind

of morphology can only be understood if there is double agreement, so that the features of both subject and object are represented in the verb. Also as in Ojibwe, there is a second morpheme, in this case a suffix, that agrees in person with that argument whose feature specification is highest on the hierarchy (the omnivorous person effect). There is an interesting twist when the subject is first person and the object second person, as in (45d). As expected, the person agreement shown by the relevant suffix is with first person. However, the number expressed is an unexpected inclusive plural, rather than the singular. We will not attempt to analyse this observation, but it is another indication that the agreement morphology reflects agreement with both subject and object.

The final possibility of the system outlined above is a person hierarchy in which first and second person are equally ranked. This should result in a language that allows resolution of clashes between third person and either first or second person, but not resolution of clashes between first and second person. An example of such a language is Kaqchikel, as discussed in Preminger (2014) (all Kaqchikel data below are taken from this source). In ordinary transitive clauses, the verb agrees with both subject and object, and this configuration of multiple agreement is reflected in two distinct agreement morphemes:

(46) Kaqchikel

- a. rat x-Ø-aw-ax-aj ri achin.  
you.SG COM-3SG.ABS-2SG.ERG-hear-ACT the man  
'You heard the man.'
- b. ri achin x-a-r-ax-aj rat.  
the man COM-2SG.ABS-3SG.ERG-hear-ACT you.SG  
'The man heard you.'

The interesting twist in Kaqchikel is that there is a construction, known as the Agent Focus construction, in which the number of agreement slots on the verb is reduced to one. This, of course, creates a situation in which person clashes arise. When one of the arguments of the verb is third person and the other one is not, the clash is resolved in favour of the non-third person argument. This is illustrated in (47) for a combination of a first person and third person argument, and in (48) for a combination of a second person and third person argument.

- (47) a. ja yin x-in / \*Ø-ax-an ri achin.  
FOC me COM-1SG / \*3SG.ABS-hear-AF the man  
'It was me that heard the man.'

- b. ja ri achin x-in / \* $\emptyset$ -ax-an yin.  
 FOC the man COM-1SG / \*3SG.ABS-hear-AF me  
 ‘It was the man that heard me.’
- (48) a. ja rat x-at / \* $\emptyset$ -ax-an ri achin.  
 FOC you.SG COM-2SG / \*3SG.ABS-hear-AF the man  
 ‘It was you that heard the man.’
- b. ja ri achin x-at / \* $\emptyset$ -ax-an rat.  
 FOC the man COM-2SG / \*3SG.ABS-hear-AF you.SG  
 ‘It was the man that heard you.’

This indicates that there is a person hierarchy in Kaqchikel on which both first and second person outrank third person.<sup>10</sup> That first and second person are not ranked with respect to each other on this hierarchy is shown by the fact that, in the Agent Focus construction, no resolution is possible in case both arguments are local. As in Icelandic and elsewhere, unresolved clashes result in ungrammaticality. Thus, the following are impossible, regardless of the choice of agreement on the verb, whether first person, second person, or (default) third person.

- (49) a. \*ja rat x-in / at /  $\emptyset$ -ax-an yin.  
 FOC you.SG COM-1SG / 2SG / 3SG.ABS-hear-AF me  
 Intended: ‘It was you that heard me.’
- b. \*ja yin x-in / at /  $\emptyset$ -ax-an rat.  
 FOC me COM-1SG / 2SG / 3SG.ABS-hear-AF you.SG  
 Intended: ‘It was me that heard you.’

Preminger (2014) argues that it is undesirable to appeal to person hierarchies to deal with the Kaqchikel data. He proposes a syntactic account which he claims

<sup>10</sup>When both arguments in the Agent Focus construction are third person, the result is third person agreement. If one of the third person arguments is plural and the other singular, we get plural agreement (omnivorous number). This indicates that, as expected, when unification is possible, this is used as the strategy for determining the spell-out of a single agreement slot for two feature bundles. When one of the arguments is first or second person and the other argument is third person, the first or second person argument will be agreed with not only for person but also for number (no omnivorous number in this case; see Preminger 2014: 20). This shows that ‘partial unification’ is impossible (either there is unification for all  $\phi$ -features, or no unification at all) and that, when unification fails, the person hierarchy determines which argument’s features are realized. This is a property of unification in general: if there is a clash in any feature, it fails.

to be motivated independently, and which derives the effects of the person hierarchy. The account is based on a Probe-Goal system of syntactic agreement regulated by relativized minimality. In the Kaqchikel Agent Focus construction, there is one functional head that acts as a Probe for person features. This head specifically probes for a participant feature. Given relativized minimality, the highest DP that has a participant feature will act as the Goal. However, Preminger assumes, following Béjar & Rezac (2003), that all first or second person features in DPs must be licensed by entering an agreement relation:<sup>11</sup>

- (50) Person Licensing Condition (Béjar & Rezac 2003)  
Interpretable 1<sup>st</sup>/2<sup>nd</sup> person features must be licensed by entering into an Agree relation with an appropriate functional category.

The consequence of this is that the lower DP in the Agent Focus construction cannot be licensed if it, too, is first or second person. In contrast, if the subject is third person, this is skipped in the Probe's search for a participant feature, and agreement will be with the first or second person object.

Whether or not an account that appeals to a person hierarchy is more stipulative than this syntactic account can only be evaluated properly when cross-linguistic variation in the effects of person hierarchies is considered. After all, we have seen that it is certainly not always the case that a clash between first and second person results in ungrammaticality. In some languages, these clashes are resolved as well, sometimes in favour of first person and sometimes in favour of second person (see above). It seems to us that the only way in which the syntactic account just outlined can deal with such variation is by specifying the features that the Probe is searching for. However, the language variation implies that it is not sufficient to specify a fixed feature content for the Probe per language. Probes must be allowed to search for different features, and in addition the features searched for must be ordered such that agreement with some is preferred over agreement with others.

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<sup>11</sup>Béjar & Rezac (2003) invoke this condition in an account of the so-called Person Case Constraint (PCC). This is a constraint on the possible features of an accusative clitic or weak pronoun in the presence of a dative clitic or weak pronoun. There is language variation in what is prohibited, but a common form of the constraint is that the accusative pronominal cannot be first or second person in the context of any dative pronominal. We think that PCC effects should not be linked to agreement, however, simply because in most of the languages that show PCC effects, neither dative nor accusative objects agree with the verb. At the least, this shows that the Agree operation invoked in (50) cannot be equated with actual agreement, but it is the latter in which we are interested here. For accounts of the PCC that are not based on Agree, see Haspelmath (2004); Runić (2013); Kiss (2015), among others.

Consider a language with a  $2 > 1 > 3$  hierarchy, for instance. Given that second person defeats first person in a clash, the verbal head must probe specifically for a feature that is unique to second person, say *ADDRESSEE*. Otherwise, it should not be able to skip a first person argument in its search. However, if the Probe is specified as *ADDRESSEE* also in a context where there is a clash between a first person and a third person argument, the situation would be unresolvable. In order to explain why the third person is ignored in favour of the first person argument, the feature content of the Probe must be different. In particular, the Probe must search for a feature that distinguishes first and third person, that is, either a *SPEAKER* feature or a more general *PARTICIPANT* feature. But in the  $1 \text{ vs } 2$  situation, the Probe cannot be permitted to search for either of these features. The implication is that there is a hierarchy that determines which features are preferably selected as the specification of the Probe. Clearly, this is simply the counterpart of the  $2 > 1 > 3$  person hierarchy. Given the attested language variation, it must be the case that this hierarchy of preferred feature content for the Probe can vary from language to language. We conclude that there is no difference between the syntactic account and the morphological account proposed here in terms of the necessity of stipulating a language-particular feature hierarchy.<sup>12</sup>

The main objection to the syntactic alternative, however, is that it fails to account for those situations in which third person DPs are involved in person clashes. As we have seen in the previous sections, the agreement data from Icelandic quirky subject constructions and Dutch clefts can be understood as the

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<sup>12</sup>Preminger argues that the syntactic account, but not an account based on a person hierarchy directly, provides insight into the morphology of the agreement markers in *Kaqchikel*. In particular, first and second person agreement markers are reduced versions of strong pronouns, while third person agreement markers are not. Moreover, the third person marker is a number marker; third person singular is null. Preminger's account for this is that probing by the person head results in clitic doubling of the Goal, while probing by the number head does not. Since the person head does not probe a third person DP, we get only number agreement when a third person DP agrees, and therefore not a clitic. (This holds both in the Agent Focus construction and in ordinary transitive clauses, so is not related to the occurrence of a person clash.) Of course, the generalisation that agreement with first and second person takes the form of a clitic can be made in any theory that can generalise over first and second person. In our account, one could say that agreement for *PROX* takes the form of a clitic. Neither of these accounts provides insight for why this should be so. It is a well-known observation that in a number of languages the morphology of first and second person agreement markers diachronically developed from pronouns, while the morphology of third person agreement markers did not (see Fuß 2005 and references mentioned there). This may not have anything to do with the internal logic of the person feature system, but rather with the high accessibility in discourse of first and second person, which Ariel (2000) argues favours reduction of the pronominal markers expressing these persons to clitics and subsequently to agreement markers.

result of just such a clash. If the person clash in the Kaqchikel Agent Focus construction is the result of the Person Licensing Condition in (50), third persons should never lead to a similar problem. At the least, then, this implies that a unified account of all the data discussed in this paper is not possible on a syntactic account based on this particular constellation of assumptions.

## 7 Conclusion

In this paper we have shown that there is a fundamental distinction between default person and default number. Third person has a feature specification, while singular number does not. The argument is based on configurations in which two  $\varphi$ -feature bundles compete for spell-out. In the case of number, this never results in a clash. Instead, there will be omnivorous number: the verb shows plural agreement whenever at least one of the feature bundles is specified as plural. In contrast, in the case of person this situation can lead to a clash. This accounts for the impossibility of having a lower nominative with a different person specification than the subject in both Icelandic quirky subject constructions and Dutch clefts. Those cases where a verb does show omnivorous person agreement are the result of language-specific person hierarchies used for resolution. We have presented an account of such hierarchies that is in line with the assumption that third person is not feature-less.

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